

EXHIBIT J

Claim

[1.P] A virtual bezel display screen suitable for use as part of an electronic device, said display screen comprising:

Various Mazda vehicles include the Mazda Connect infotainment system providing the features discussed herein, such as the 2016-2020 Mazda3, 2018 and 2021 Mazda6, 2017 and 2018 Mazda CX-5, 2017 and 2018 Mazda CX-9, and 2022-2023 Mazda MX-5. The Mazda connect infotainment system includes a virtual bezel display screen suitable for use as part of an electronic device.

For example, the Mazda Connect system includes an infotainment system (“electronic device”) comprising a touchscreen (“display screen”). As shown in the screenshots below, the touchscreen includes a virtual bezel area located at, for example, the top and bottom of the screen.

The virtual bezel display screen is used as part of the electronic device and includes touch-sensitive soft buttons related to different content, such as status information, navigation, telephone, radio and audio media.



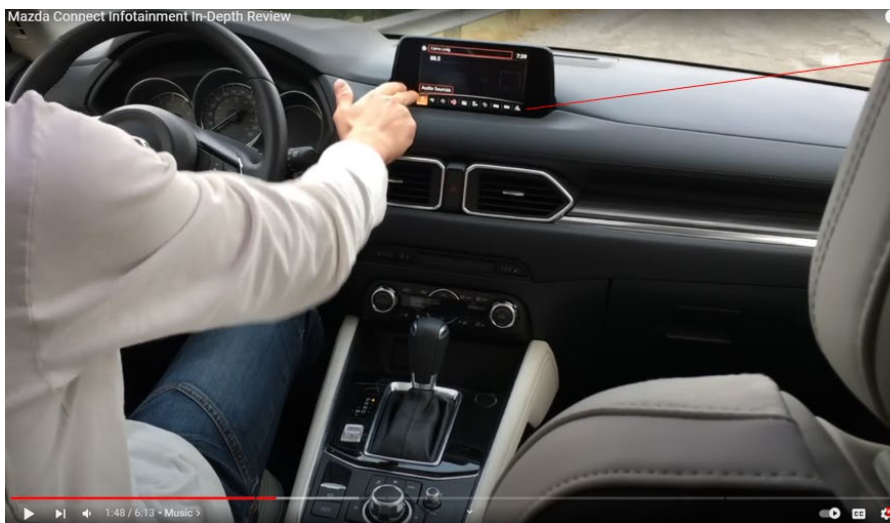
Virtual bezel display screen

<https://youtu.be/uDOZX-MnXO8>



Top edge of the display includes touch-sensitive soft icons for the home screen and various status information, including time, connectivity, and battery status

<https://youtu.be/P5X4v59Zifs>



Touch-sensitive soft buttons on the virtual bezel region

https://www.youtube.com/watch?v=j7EZOQx_ppU



Touch-sensitive soft buttons for a telephone located on the border or edge of the display.

<https://www.youtube.com/watch?v=P5X4v59Zifs>



Touch-sensitive soft buttons for accessing and managing audio media content, located on the border or edge of the display screen

<https://www.youtube.com/watch?v=P5X4v59Zifs>



Touch-sensitive soft buttons for navigation located on the border or edge of the display

<https://www.youtube.com/watch?v=P5X4v59Zifs>



Edge or border area of a display is fully touch-functional, enhancing the user experience.

<https://www.youtube.com/watch?v=uDOZX-MnXO8>



https://www.youtube.com/watch?v=j7EZOQx_ppU

Mazda Connect Infotainment System: Mazda vehicles feature the Mazda Connect infotainment system, offering intuitive access to entertainment, communication, and vehicle settings. Featuring user-friendly touchscreen displays with smartphone integration capabilities and voice command capability – Mazda Connect keeps drivers entertained while prioritizing ease of use.

<https://internationalbrandsmagazine.com/malaysias-top-10-automobile-companies/>

[1.1] a virtual bezel area, said virtual bezel area having a touchscreen layer with a first mode of response to a first set of touch-based inputs from a user of said virtual bezel display screen, said virtual bezel area functioning to display a first portion of content on said virtual bezel display screen;

The virtual bezel display screen of the Mazda Connect system includes a virtual bezel area with a touchscreen layer. This bezel area responds to a specific set of touch inputs from the user, displaying a portion of content on the screen.

For example, the touchscreen includes a virtual bezel region located at the top and bottom of the active touchscreen region that a user can interact with.



Virtual bezel area having a touchscreen layer

<https://youtu.be/IrSrMNVhVFM>



Virtual bezel area

<https://youtu.be/IrSrMNVhVFM>



Top edge of the display includes touch-sensitive soft icons for the home screen and various status information, including time, connectivity, and battery status

<https://youtu.be/P5X4v59Zifs>

The Mazda Connect system includes a virtual bezel that is integrated into the display itself. This bezel area is fully touch-sensitive and programmed to respond swiftly to a variety of user inputs. These inputs include switching between 2D and 3D viewing modes, accessing audio media content, managing telephone content, and displaying status information such as time and network connectivity. This bezel region is highly responsive and effectively displays content on the screen.



https://youtu.be/j7EZOQx_ppU



https://www.youtube.com/watch?v=j7EZOQx_ppU&t=20s



Display audio media content on display screen

<https://youtu.be/P5X4v59Zifs>



Display FM radio content on the screen.

<https://youtu.be/41dTLRT99bY>



Display telephone content/ options on the virtual bezel display screen.

<https://www.youtube.com/watch?v=P5X4v59Zifs>



<https://www.youtube.com/watch?v=dxQYUKW-h8E>



<https://youtu.be/P5X4v59Zifs>



<https://youtu.be/uDOZX-MnXO8>



Touch inputs, like tapping the exit soft button on the virtual bezel, expand navigation content to full screen and minimize bezel buttons

The frame of the Mazda Connect infotainment system is integrated into the touchscreen itself. This frame-bordered area has a touchscreen layer that responds in specific ways, such as hiding shortcut icons (the first mode of response) in reaction to certain touch inputs and displaying navigation content on the full screen.

https://youtu.be/j7EZOQx_ppU

[1.2] an active touchscreen region substantially disposed within said virtual bezel area, said active touchscreen region having a touchscreen layer with a second mode of response to said first set of touch-based inputs from the user of said virtual bezel display screen, said active touchscreen region functioning to display a second

The Mazda Connect system includes an active touchscreen region situated within the virtual bezel area (e.g., the area showing the map in the screenshot below). The active touchscreen region having a touchscreen layer with a second mode of response to the first set of touch-based inputs from the user of the virtual bezel display screen (e.g., responses relating to interaction with the map), the active touchscreen region functioning to display a second portion of said content on the virtual bezel display screen (e.g., the map in the screenshot below).

portion of said content on said virtual bezel display screen; and

Virtual bezel region



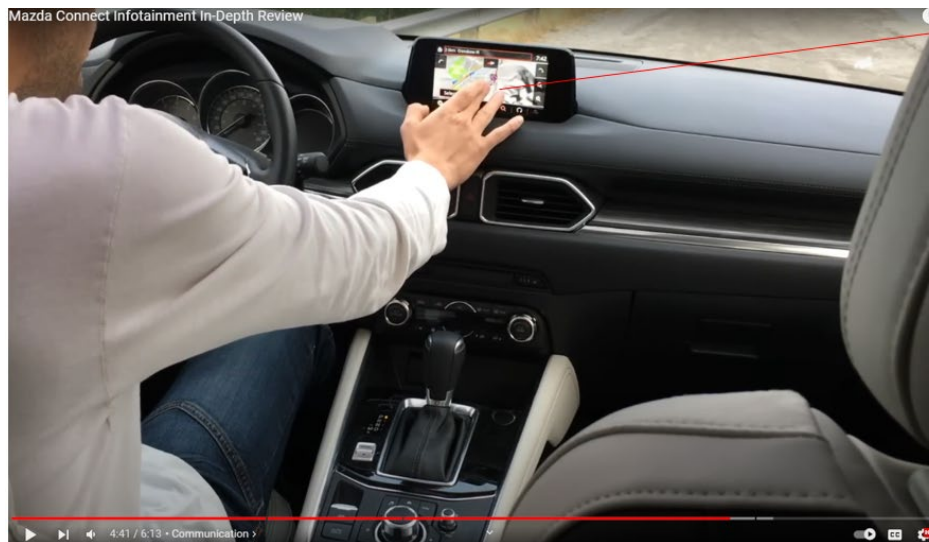
Active touchscreen region

<https://youtu.be/P5X4v59Zifs>



Active region is located within the virtual bezel area and responds to user touch inputs.

<https://www.youtube.com/watch?v=P5X4v59Zifs&t=240s>



Active region with a touchscreen layer allows single-finger presses and drags to move the navigation map content.

https://www.youtube.com/watch?v=j7EZOQx_ppU



User interaction or touch-based inputs within an active touchscreen region.

https://www.youtube.com/watch?v=j7EZOQx_ppU

MAZDA CONNECT INFOTAINMENT SYSTEM

The touchscreen

You can touch and tap, slide or swipe the touchscreen


Types of User Interactions on a Touch-Sensitive Virtual Bezel Display Screen

<https://www.mazdausa.com/siteassets/pdf/owners-optimized/2017/mzd-st/2017-mx-5-smart-start-guide.pdf>



Touch-based inputs, such as tapping by the user on the virtual bezel display screen, cause the active region to display an enhanced view of the navigation map content on the display screen.

<https://www.youtube.com/watch?v=IrSrMNVhVFM>

	View Mode	To change the map mode (2D north up / 2D heading up / 3D).
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<https://www.mazdausa.com/siteassets/pdf/owners-optimized/2017/mzd-st/2017-mx-5-smart-start-guide.pdf>



Display navigation map content on the screen.

https://youtu.be/j7EZOQx_ppU

[1.3] a gestural software application in communication with said virtual bezel display screen, said gestural software application functioning to produce said first mode of response in said virtual bezel area, wherein said first mode of response is configured to selectively interpret touch-based inputs as intentional user input intended to affect the display of the second portion of the content on the active touchscreen region.

The Mazda Connect system includes a gestural software application in communication with the virtual bezel display screen, the gestural software application functioning to produce the first mode of response in the virtual bezel area, where it is designed to selectively interpret touch-based inputs as deliberate user actions intended to modify the display of a specific portion of content within the active touchscreen region.

For example, as discussed above, the touchscreen enables the user to provide touch inputs on the virtual bezel. The touchscreen includes a gestural software application, implemented as firmware, which communicates with the virtual bezel display screen. This application interprets the gesture inputs to provide a response by displaying information (the 'first mode of response') related to the soft buttons shown on the virtual bezel.



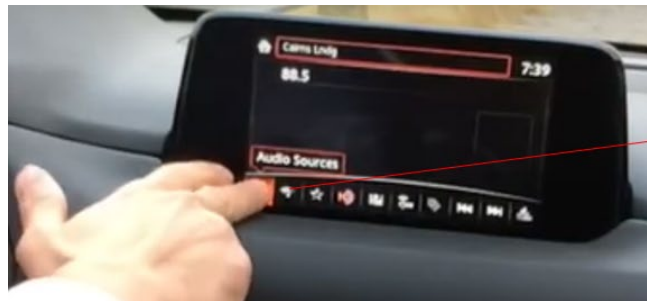
Virtual bezel display screen

<https://www.automotive-fleet.com/144322/mazda-s-2016-mazda6?photo=179059>



Virtual bezel area (edge of the display) contains soft buttons. Infotainment interprets and processes user gestures, including touches and movements, to handle touch-based inputs.

<https://www.cnet.com/roadshow/videos/checking-the-tech-in-the-2018-mazda6/>



Recognizes touches on the virtual bezel to display audio media content.

https://www.youtube.com/watch?v=j7EZOQx_ppU



Display audio media content to the user

https://www.youtube.com/watch?v=j7EZOQx_ppU



Interprets user interactions/touch inputs as commands to adjust the content displayed on the active touchscreen region.

https://www.youtube.com/watch?v=j7EZOQx_ppU



Display navigation-related information such as nearby gas stations, banks, and restaurants

<https://www.youtube.com/watch?v=41dTLRT99bY&t=15s>

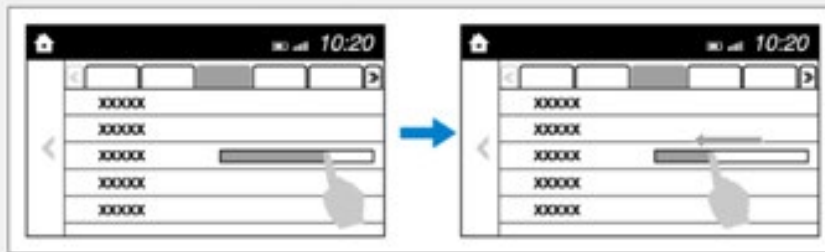


Display navigation content

<https://www.youtube.com/watch?v=41dTLRT99bY&t=15s>

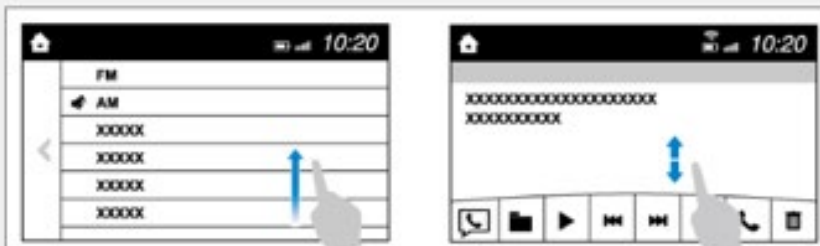
Slide

1. Touch the setting item displaying a slider bar.
2. Touch the slider with your finger and move to the desired level.



Swipe

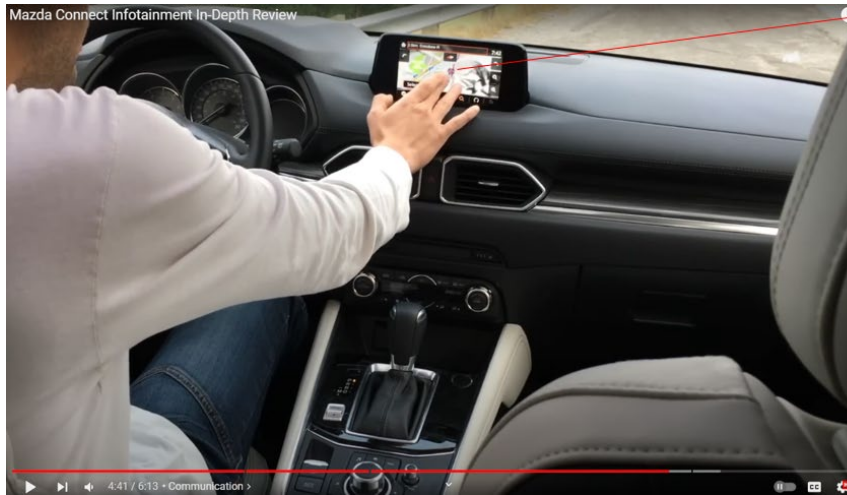
1. Touch the screen with your finger and move up or down.
2. Items which were not displayed can be displayed.



<https://www.mazdausa.com/static/manuals/2023/mx-5/contents/06110202.html>

Moreover, the first mode of response is designed to interpret touch-based inputs as intentional commands that alter the content displayed on the active touchscreen area. For example, a user might use a swipe or tap gesture within this region to intentionally change the displayed content. If the gesture extends into or ends at the virtual bezel area, the touchscreen's firmware will recognize it as an intentional input (i.e., swipe input) meant to affect the display (i.e., scroll the

displayed content). Consequently, the gesture modifies the content shown on the active touchscreen area, such as scrolling up or down.

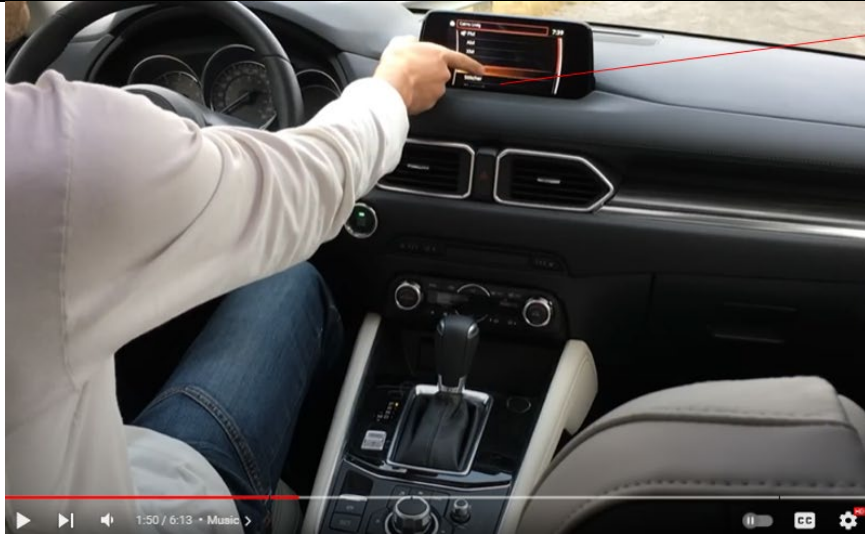


A single finger-press and scroll affect the content shown on the active touchscreen region (i.e., move the navigation map content)

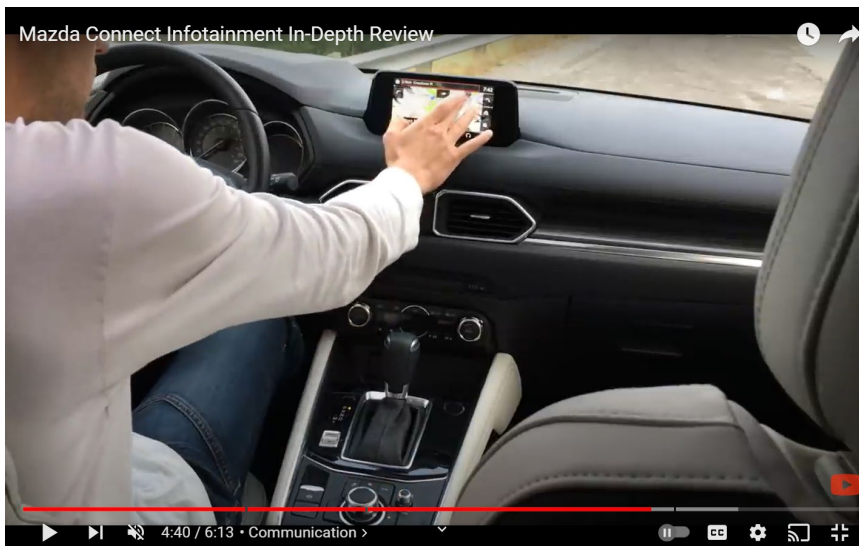
https://youtu.be/j7EZOQx_ppU



https://www.youtube.com/shorts/oQ52Zg__uaE



Gestures that extend into or end at the virtual bezel are recognized as swipe gestures, affecting the on-screen content. For example, a swipe gesture may scroll through audio sources.



https://www.youtube.com/watch?v=j7EZOQx_ppU&t=33s

2. The virtual bezel display screen according to claim 1, wherein said gestural software application functions to produce said second mode of response in said active touchscreen region.

The gestural software application of virtual bezel display screen of Mazda connect system functions to produce the second mode of response in the active touchscreen region.

For example, the navigation-related information displayed in the active touchscreen region is produced based on user interaction with the active region.



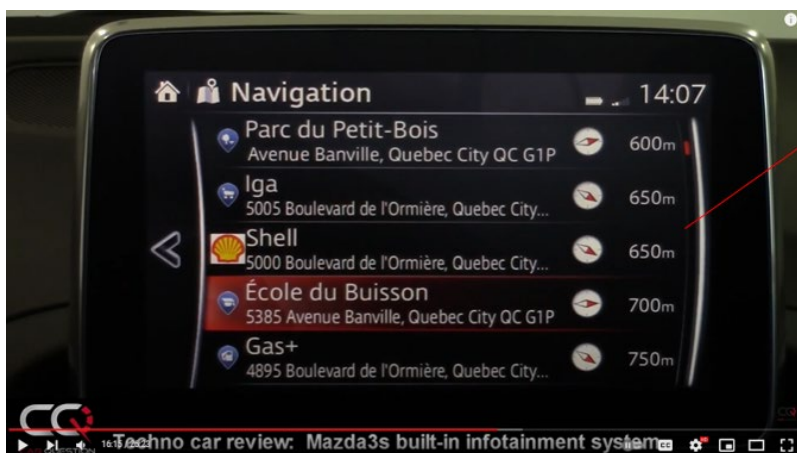
User interactions with the active touchscreen region enhance the viewing area of the navigation map content in the active touchscreen region

https://www.youtube.com/watch?v=j7EZOQx_ppU



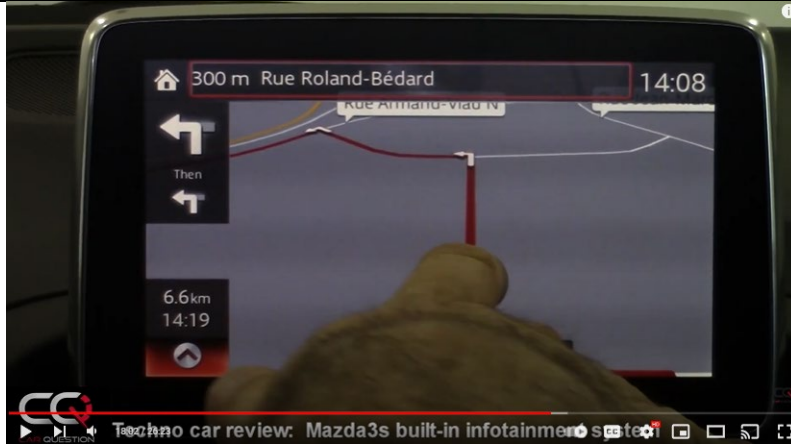
Display navigation-related information such as nearby gas stations.

<https://www.youtube.com/watch?v=41dTLRT99bY&t=15s>



Display navigation-related information such as nearby gas stations, banks, and restaurants

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<https://www.youtube.com/watch?v=41dTLRT99bY&t=15s>

4. The virtual bezel display screen according to claim 1, wherein a touch-based input from a second set of touch-based inputs originating in said active touchscreen region and terminating in said virtual bezel area is processed as a touch-based input from said second set of touch-based inputs.

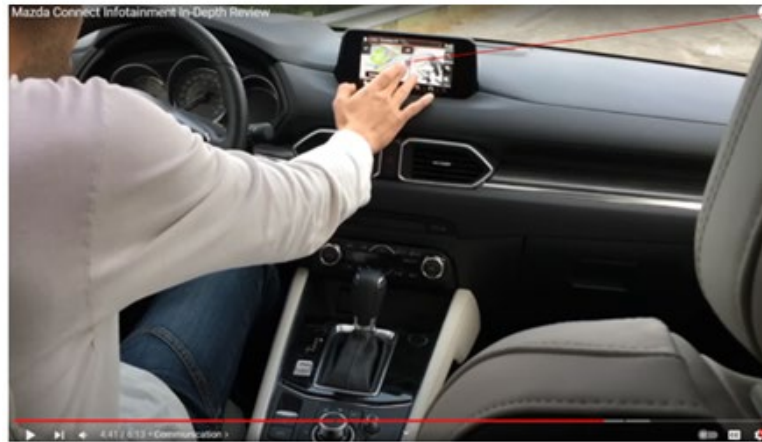
The Mazda connect system provides a virtual bezel display screen wherein a touch-based input from a second set of touch-based inputs originating in the active touchscreen region and terminating in the virtual bezel area is processed as a touch-based input from the second set of touch-based inputs.

For example, the user may originate a swipe gesture in the active touchscreen region and terminate that gesture in the virtual bezel area, which on information and belief the virtual bezel display screen processes as a touch-based input intended to affect the content on the active touchscreen (e.g., scroll the content on the display screen such as audio media or navigation map).

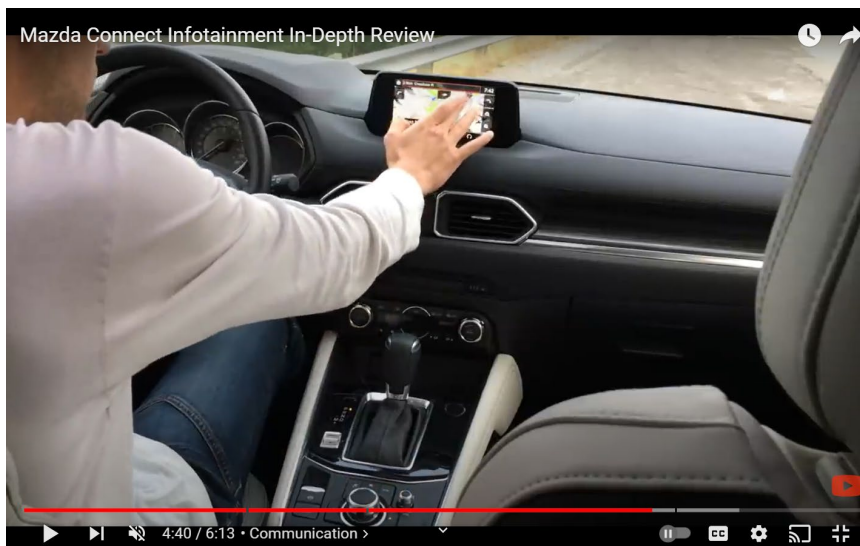


Gestures that extend into or end at the virtual bezel are recognized as swipe gestures, affecting the on-screen content. For example, a swipe gesture may scroll through audio sources.

https://www.youtube.com/watch?v=j7EZOQx_ppU&t=33s



Single finger gesture input originating in the active region and dragging/ending in the bezel area is recognized as a swiping action that scrolls the map view displayed on the screen.



https://youtu.be/j7EZOQx_ppU